

Minutes, 4/21/04 Tevatron BPM Upgrade Meeting
Stephen Wolbers

This set of minutes, and all future minutes, are or will be deposited in the Beams Document Database as document number 792.

The agenda as announced consisted of:

1. Report from Steve and Bob.
2. Reports from L2 managers.
3. Report from Dehong on EchoTek testing.
4. AOB.

1. Report from Bob and Steve.

- The Lehman review of the BTeV project is to occur next week, April 27-29. It may affect the participation of some people next week in the BPM meetings.

2. Reports from L2 Managers

Mike Martens:

- Mike participated in the review of the BLM project. Given the schedule, the change in front-end processing for the BLM, etc. there is some new thinking about how the upgraded BLM should communicate with the controls system. The BPM and BLM project will have to discuss options and plans.

Margaret Votava:

- There was a design review of the front-end software on Tuesday, April 20. Margaret is writing up notes and will collect written information from Jim Kowalkowski and Brian Hendricks. There will be a meeting next Wednesday to discuss the review.

- Steve asked when the Tevatron BPM front-end software could be used to read out information. One could imagine this as part of the teststand development. This is something that should be thought about, along with the online and offline software and applications that all work together. An early integration would be extremely beneficial for the project and will undoubtedly uncover issues that will take time to resolve. The project should begin to think about goals for integration of the new software and hardware at the teststand.

- Diagnostics and calibrations as well as alarms are all areas that need further specification so that the proper front end software can be specified, designed, written, tested, debugged, integrated.

Dehong Zhang:

- Dehong has been asked to update the preparations of the teststand in Feynman for the testing of the new boards that are expected in early June. His work can be found in AD note #1114, which is updated as more details and information are added. See the note for more details.

- Dehong showed some plots from tests that he has made on the Recycler Echotek boards starting from Duane's labview code.

- The new driver documentation should be received from EchoTek next week.

Vince Pavlicek:

- Bill Haynes is on vacation. Ken is working on schematics for the diagnostic board.

- The hardware specification document has been updated. It is AD doc #1065.

Brian Hendricks:

- The online software specification document v3 was released recently. Please send comments to Brian as we are now close to signing off on the document.

- We again discussed the possibility of using new code as soon as possible for the teststand and for new production boards.

- Brian brought up the issue of diagnostics programs. There was a discussion of the different types of diagnostics that are required by the project and how they are to be organized.

Rob Kutschke:

- Rob reported that the 53 MHz filter used in the "plan B" pbar measurement was not adequate to remove higher frequency components of the beam that aliased into the measurement. This was resolved by the addition of a low pass filter. Results can be found in AD doc #1124.

- The accuracy of the pbar measurement should be on the order of

or less than about 500 microns.

- The plan B pbar measurement can also be referred to as the "short gate sampling mode", according to Jim Steimel.

- Rob looked at the store of 4/20/04 and has seen the p resolution fluctuate between 9.5 and 11.5 microns and the pbar resolution change from 25 to 40 microns. The pbar resolution flattens out at 40 microns after some long time. This behavior is not yet understood.

- The S/W specification is in the doc DB. Rob is working with Brian to refine and update the spec.

Jim Steimel: Technical Coordinator Report

- There was a discussion of the new mode of data collection, the short gate sampling mode. We should prepare to use that mode as one option for the TeV BPM system.

- Rob and Jim and talking about calibration. A discussion will occur Monday April 26 at 11.

- Jim has been investigating the issues surrounding the placement of the new TeV BPM system in the service buildings. This includes trying to move the cable TV and the Tevatron communications system in order to free space in the rack next to the current Tev BPM system.

- Thursday April 15 at 1:30 P.M. the project will continue the commissioning plan discussion.

4. AOB.